



# Launch Mission Execution Forecast

**Mission:** Falcon 9 Starlink 4-18

**Issued:** 15 May 2022 / 0730L (1130Z)

**Valid:** 18 May 2022 / 0610 – 0710L (1010 – 1110Z)



**Forecast Discussion:** The high pressure area over the Atlantic Ocean will gradually drift away from the Florida Peninsula over the next few days as a frontal system moves into eastern US. Southerly winds will keep the temperatures elevated in Central Florida and allow daily sea breeze interactions to produce isolated showers and thunderstorms each afternoon and evening. The frontal system will push off the Eastern Seaboard on Monday, with the tail end of the front lagging into the Florida Panhandle. On Tuesday, the remnants of the boundary will stall mostly north of the Space Coast, but could add ingredients to enhance the shower and thunderstorm coverage and intensity. The high pressure area will begin to build back into the area on Wednesday, returning Central Florida to the daily cycle of sea breeze interaction. The Primary weather concern for a launch attempt Wednesday morning is the Cumulus Cloud Rule.

High pressure will continue to build into the area on Thursday, keeping conditions much the same as the previous day. The primary weather concern for Thursday morning remains the Cumulus Cloud Rule.

Launch Day	Probability of Violating Weather Constraints <sup>1</sup>							
	20%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria <sup>2</sup>		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	72°F / 90%	Cumulus	Few	3,000	10,000	Booster Recovery Weather:	Low
	Liftoff Winds (200'): 240° 8 - 12 mph					Solar Activity:	Low	
24-Hour Delay	Probability of Violating Weather Constraints							
	20%	Primary Concerns: Cumulus Cloud Rule						
	Weather Conditions					Additional Risk Criteria		
	Weather/Visibility:	None / 7 mi.	Type	Coverage	Base (ft)	Tops (ft)	Upper-Level Wind Shear:	Low
	Temp/Humidity:	72°F / 90%	Cumulus	Few	3,000	8,000	Booster Recovery Weather:	Low
	Liftoff Winds (200'): 220° 8 - 12 mph					Solar Activity:	Low	
Notes	1. The Probability of Violation (PoV) is the chance of a local safety or customer constraint violation occurring anytime during the launch window.							
	2. Additional Risk Criteria, which are not included in the PoV, are mission-specific constraints that may not include all phenomena within each risk factor.							
See <a href="https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf">https://www.patrick.spaceforce.mil/Portals/14/Weather/LaunchFAQ.pdf</a> for more information								
Next Forecast Will Be Issued			16 May 2022					